

## CLAIMS

1. A method of saving data within a persistent data space of a hearing aid, the method comprising the steps of:

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processing an input signal by a processor according to a predetermined algorithm to generate a processed output signal,

generating a plurality of data sets, representing respective values of predetermined  
10 hearing aid associated variable(s), by the processor,

writing the plurality of data sets to respective storage areas within the persistent data space,

15 indicating a valid data set, of the plurality of data sets, by setting a value of at least one data variable in the persistent data space.

2. A method according to claim 1, wherein the processor reads the value of the at least one data variable during power on of the hearing aid to identify and load the valid data set  
20 of the plurality of data sets.

3. A method according to claim 1, wherein the plurality of data sets are written to their respective storage areas in an intermittent manner.

25 4. A method according to claim 1, wherein the plurality of data sets are written to the persistent data space during normal operation of the hearing aid.

5. A method according to claim 1, wherein the plurality of data sets comprise respective data representing accumulated utilisation time values of the hearing aid.

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6. A method according to claim 1, wherein the plurality of data sets comprise respective data representing values of signal processing parameters of the predetermined algorithm.

7. A method according to claim 1, wherein the persistent data space is arranged in one or several memory device(s) selected from the group consisting of: (EEPROM, EPROM, Flash Memory, RAM powered by a back-up voltage).
- 5 8. A method according to claim 7, wherein persistent data space is arranged in a single external EEPROM device and each data set of the plurality of data sets is placed in a separate memory-page of the external EEPROM.
9. A method according to claim 1, wherein each data set of the plurality of data sets is  
10 written to the persistent data space at regular time intervals, the time interval being between 5 minutes and 60 minutes.
10. A method according to claim 1, wherein the at least one data variable is stored within the persistent data space in a storage area separate from the respective storage areas of  
15 the plurality of data sets.
11. A method according to claim 1, wherein each data set comprises a data variable indicating whether that data set is the valid data set.
- 20 12. A method according to claim 11, wherein the data variables of the plurality of data sets are represented by respective counter values.
13. A method according to claim 1, wherein each data set of the plurality of data sets is associated with an error detection or error correction code within the persistent data  
25 space.
14. A method according to claim 1, wherein the plurality of data sets are constituted by a first and a second data set, and
- 30 the at least one data variable comprises a single binary data variable indicating the valid data set.
15. A hearing aid comprising a persistent data space and a processor adapted to perform a method of saving data according to claim 1.

16. A hearing aid adapted to store values of hearing associated variables in a persistent memory device during normal use of said hearing aid, the hearing aid comprising:

an input signal channel providing an input signal,

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a processor adapted to:

process the input signal according to a predetermined algorithm to generate a processed output signal,

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generate a first data set representing a value or values of one or several predetermined hearing aid associated variable(s),

writing the first data set to a first memory segment within the persistent memory device,

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generate a second data set representing a value or values of the one or several predetermined hearing aid associated variable(s),

writing the second data set to a second memory segment within the persistent memory

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device,

selectively indicating the first or the second data set as a valid data set by setting a data variable value in a third memory segment in the persistent memory device.

25 17. A hearing aid according to claim 16, wherein the persistent memory device is a serial EEPROM.

18. A hearing aid according to claim 17, wherein each of first, second and third memory segments is placed in a separate memory-page of the serial EEPROM.

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19. A method of saving data within a persistent data space of a hearing aid, the method comprising the steps of:

processing an input signal by a processor according to a predetermined algorithm to

35 generate a processed output signal,

generating a plurality of data sets, representing respective values of predetermined hearing aid associated variable(s), by the processor,

- 5 generating for each data set, an associated error detection code,

writing the plurality of data sets and the associated error detection codes to respective storage areas within the persistent data space.

- 10 20. A method according to claim 19, comprising the further steps of:

reading a first data set and its associated error detection code from the persistent data space during power on of the hearing aid,

- 15 determining whether the first data set is a valid data set based on the associated error detection code,

skipping the first data set if it is invalid,

- 20 reading data sets and their associated error detection codes from the persistent data space until a valid data set is identified,

applying values of the predetermined hearing aid associated variable(s) represented by the valid data set to the hearing aid.

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21. A method according to claim 20, comprising the further steps of:

notifying a hearing aid user of an irrecoverable error condition within the hearing aid by introducing a distinct notification signal into the processed output signal in case that none

- 30 of the plurality of data sets contain valid data.

22. A hearing aid comprising a persistent data space and a processor adapted to perform a method of saving data according to claim 19.